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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/523,348	09/29/2005	Etsuko Koyanagi	44471/311941	8308

23370 7590 09/02/2009

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EXAMINER
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COONEY, ADAM A

ART UNIT	PAPER NUMBER
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2444

MAIL DATE	DELIVERY MODE
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09/02/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/523,348	<b>Applicant(s)</b> KOYANAGI ET AL.	
	<b>Examiner</b> ADAM COONEY	<b>Art Unit</b> 2444	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 29 April 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-80 is/are pending in the application.
- 4a) Of the above claim(s) 37-47, 50-72, 75, 79 and 80 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-36, 48, 49, 73, 74 and 76-78 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/28/2005 and 7/25/2005</u> .                                 | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Election/Restrictions*

1. Claims 37-47, 50-72, 75, 79 and 80 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 4/29/2009.

### *Requirements for information*

2. Applicant and the assignee of this application are required under 37 CFR 1.105 to provide the following information that the examiner has determined is reasonably necessary to the examination of this application.

3. The information is required to enter in the record the art suggested by the applicant as relevant to this examination. The applicant submitted as prior art a non-patent literature document on 1/28/2005. The document states "*in relation to this international application, Nippon Telegraph and Telephone Corporation declares that the subject matter claimed in this international application was disclosed as follows:*". The document states the disclosure type is a publication and gives the date of the disclosure. However, the title of the disclosure and where to find this disclosure is not given. The examiner requests that the applicant provide the publication that is referenced.

4. In responding to those requirements that require copies of documents, where the document is a bound text or a single article over 50 pages, the requirement may be met by providing copies of those pages that provide the particular subject matter indicated in the

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requirement, or where such subject matter is not indicated, the subject matter found in applicant's disclosure.

5. The fee and certification requirements of 37 CFR 1.97 are waived for those documents submitted in reply to this requirement. This waiver extends only to those documents within the scope of this requirement under 37 CFR 1.105 that are included in the applicant's first complete communication responding to this requirement. Any supplemental replies subsequent to the first communication responding to this requirement and any information disclosures beyond the scope of this requirement under 37 CFR 1.105 are subject to the fee and certification requirements of 37 CFR 1.97.

6. The applicant is reminded that the reply to this requirement must be made with candor and good faith under 37 CFR 1.56. Where the applicant does not have or cannot readily obtain an item of required information, a statement that the item is unknown or cannot be readily obtained may be accepted as a complete reply to the requirement for that item.

### ***Claim Objections***

Claim 48 is objected to because of the following informalities:

7. The phrase "conform to the contract information" in line 6 should be -- conform to contract information--.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1-4, 6-8, 10-12, 14-16, 18-20, 22-36, 48, 49, 73 and 74 are rejected under 35**

**U.S.C. 102(b) as being anticipated by PCP: An End-to-End Measurement-Based Call**

**Admission Control for Real-Time Services over IP Networks (hereinafter PCP).**

8. Regarding claims 1,6, and 22 PCP teaches a method, means for and procedure of sending packets of a trial class for a predetermined period from a caller terminal apparatus (see page 3 section 2 second paragraph and third paragraph); estimating whether or not the communication quality of the packets is sufficient; if it is sufficient, sending packets of a priority class thereafter; if it is insufficient, stopping to send packets of the trial class for a second predetermined period; after the second predetermined period, estimating according to a monitored traffic rate of packets of the priority class whether or not it is possible to send packets of the trial class; and if it is possible, again sending packets of the trial class for the predetermined period from the caller terminal apparatus (see page 3 section 2 third paragraph; page 4 first and second paragraphs).

9. Regarding claims 2 and 10, PCP teaches a method and means for sending packets of a trial class for a predetermined period from a caller terminal apparatus (see page 3 section 2 second paragraph and third paragraph); estimating whether or not the communication quality of the packets is sufficient; if it is sufficient, sending packets of a priority class thereafter; if it is insufficient, stopping to send packets of the trial class for a second predetermined period; after

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the second predetermined period, estimating according to a communication quality level the preceding trial-class packets whether or not it is possible to send packets of the trial class; and if it is possible, again sending packets of the trial class for the predetermined period from the caller terminal apparatus (see page 3 section 2 third paragraph; page 4 first and second paragraphs).

10. Regarding claims 3 and 14, PCP teaches a method and means for sending packets of a trial class for a predetermined period from a caller terminal apparatus (see page 3 section 2 second paragraph and third paragraph); estimating whether or not the communication quality of the packets is sufficient; if it is sufficient, sending packets of a priority class thereafter; if it is insufficient, stopping to send packets of the trial class for a second predetermined period; after the second predetermined period, estimating whether or not it is possible to send packets of the trial class according to an execution probability estimated from a communication quality of the preceding trial-class packets; and if it is possible, again sending packets of the trial class for the predetermined period from the caller terminal apparatus (see page 3 section 2 third paragraph; page 4 first, second and third paragraphs).

11. Regarding claims 4 and 18, PCP teaches a method and means for starting to send packets of a trial class from a caller terminal apparatus (see page 3 section 2 second paragraph and third paragraph); estimating from time to time whether or not the communication quality of the packets is sufficient; if it is sufficient and if the sufficient state continues for a predetermined period, sending packets of a priority class; if it becomes insufficient, immediately stopping to send packets of the trial class and continuously stopping to send packets of the trial class for a second predetermined period; after the second predetermined period, estimating whether or not it is possible to send packets of the trial class; and if it is possible, again sending packets of the trial

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class from the caller terminal apparatus (see page 3 section 2 third paragraph; page 4 first and second paragraphs).

12. Regarding claim 7, PCP teaches all the limitations of independent claim 6, as discussed above. Further, PCP teaches wherein each of the terminal apparatuses has each of the means (see PCP page 1 section 1 first paragraph; IP Telephony it is obvious that to provide the real time services that "terminal apparatuses" will be used in order to complete the call).

13. Regarding claim 8, PCP teaches all the limitations of independent claim 6, as discussed above. Further, PCP teaches wherein each of the packet transfer apparatuses has each of the means (see PCP page 1 section 1 first paragraph; routers).

14. Regarding claim 11, PCP teaches all the limitations of independent claim 10, as discussed above. Further, PCP teaches wherein each of the terminal apparatuses has each of the means (see PCP page 1 section 1 first paragraph; IP Telephony it is obvious that to provide the real time services that "terminal apparatuses" will be used in order to complete the call).

15. Regarding claim 12, PCP teaches all the limitations of independent claim 10, as discussed above. Further, PCP teaches wherein each of the packet transfer apparatuses has each of the means (see PCP page 1 section 1 first paragraph; routers).

16. Regarding claim 15, PCP teaches all the limitation of independent claim 14, as discussed above. Further, PCP teaches wherein each of the terminal apparatuses has each of the means (see PCP page 1 section 1 first paragraph; IP Telephony it is obvious that to provide the real time services that "terminal apparatuses" will be used in order to complete the call).

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17. Regarding claim 16, PCP teaches all the limitations of independent claim 14, as discussed above. Further, PCP teaches wherein each of the packet transfer apparatuses has each of the means (see PCP page 1 section 1 first paragraph; routers).

18. Regarding claim 19, PCP teaches all the limitations of independent claim 18, as discussed above. Further, PCP teaches wherein each of the terminal apparatuses has each of the means (see PCP page 1 section 1 first paragraph; IP Telephony it is obvious that to provide the real time services that "terminal apparatuses" will be used in order to complete the call).

19. Regarding claim 20, PCP teaches all the limitations of independent claim 18, as discussed above. Further, PCP teaches wherein each of the packet transfer apparatuses has each of the means (see PCP page 1 section 1 first paragraph; routers).

20. Regarding claims 23 and 36, PCP teaches a method and procedure of presetting a trial-class band capacity not to discard packets of the trial class; and if a total flow rate of packets of the trial and priority classes exceeds the trial-class band capacity, discarding packets of the trial class (see page 4 second and third paragraphs; bandwidth reserved and set up).

21. Regarding claim 24, PCP teaches all the limitations of independent claim 23, as discussed above. Further, PCP teaches if a total flow rate of packets including packets of a new transmission request exceeds the trial-class band capacity, discarding the new packets if they are of the trial class and passing them if they are of the priority class (see page 5 section 3 first and second paragraphs).

22. Regarding claim 25, PCP teaches all the limitations of claim 24, as discussed above. Further, PCP teaches presetting a priority-class band capacity not to discard packets of the priority class; and if a total flow rate of packets including packets of the priority class of a new



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transmission request exceeds the priority-class band capacity, discarding the new packets of the priority class (see page 4 second and third paragraphs).

23. Regarding claim 26, PCP teaches all the limitations of independent claim 23, as discussed above. Further, PCP teaches transferring packets in communication-band-variable flows, and if a total flow rate exceeds the trial-class band capacity due to a communication band expansion, discarding packets of the trial class (see page 8 third paragraph).

24. Regarding claim 27, PCP teaches all the limitations of claim 26, as discussed above. Further, PCP teaches presetting a priority-class band capacity not to discard packets of the priority class; and if a total flow rate exceeds the priority-class band capacity due to a communication band expansion, discarding packets of the priority class (see page 4 second and third paragraphs and page 8 third paragraph).

25. Regarding claim 28, PCP teaches all the limitations of independent claim 23, as discussed above. Further, PCP teaches wherein the terminal apparatus makes a request of transmitting packets of the trial class, and according to a resultant transmission quality, makes a request of transmitting packets of the priority class or again of the trial class (see page 3 section 2 fourth paragraph).

26. Regarding claim 29, PCP teaches a storage part prestoring a trial-class band capacity not to discard packets of the trial class; and a flow-rate monitor part to discard packets of the trial class if a total flow rate of packets of the trial and priority classes exceeds the trial-class band capacity (see page 4 first paragraph; core routers).

27. Regarding claim 30, PCP teaches all the limitations of independent claim 29, as discussed above. Further, PCP teaches wherein, if a total flow rate of packets including packets of a new

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transmission request exceeds the trial- class band capacity, the flow-rate monitor part discards the new packets if they are of the trial class and passes them if they are of the priority class (see page 4 first paragraph).

28. Regarding claim 31, PCP teaches all the limitations of claim 30, as discussed above.

Further, PCP teaches the storage part prestores also a priority-class band capacity not to discard packets of the priority class; and if a total flow rate of packets including packets of the priority class of a new transmission request exceeds the priority-class band capacity, the flow-rate monitor part discards the new packets of the priority class (see page 4 first and second paragraphs).

29. Regarding claim 32, PCP teaches all the limitations of independent claim 29, as discussed above. Further, PCP teaches wherein packets are transferred in communication-band-variable flows, and if a total flow rate exceeds the trial-class band capacity due to a communication band expansion, the flow-rate monitor part discards packets of the trial class (see page 5 section 3 first and second paragraphs).

30. Regarding claim 33, PCP teaches all the limitations of claim 32, as discussed above.

Further, PCP teaches the storage part prestores also a priority-class band capacity not to discard packets of the priority class; and if a total flow rate exceeds the priority-class band capacity due to a communication band expansion, the flow-rate monitor part discards packets of the priority class (see page 4 first and second paragraphs and page 5 section 3 first and second paragraphs).

31. Regarding claim 34, PCP teaches all the limitations of independent claim 29, as discussed above. Further, PCP teaches plurality of circuits each capable of transferring packets of the priority and trial classes and being monitored by the flow-rate monitor part, wherein, if at least

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one of the circuits fails so that all flows of packets in the failed circuit are switched to at least a second of the circuits and if a total flow rate of packets of the trial and priority classes in the second circuit exceeds the trial-class band capacity , the flow-rate monitor part discards packets of the trial class (see page 4 first paragraph and page 15 section 6 third paragraph).

32. Regarding claim 35, PCP teaches all the limitations of independent claim 29, as discussed above. Further, PCP teaches wherein the terminal apparatus is a mobile terminal apparatus that transmits packets by radio, and if a total flow rate of packets of the trial and priority classes exceeds the trial-class band capacity due to handover caused by a movement of the mobile terminal apparatus, the flow-rate monitor part discards packets of the trial class (see pages 1 and 2 introduction section).

33. Regarding claim 48, PCP teaches a class transition monitor part to receive monitor information that includes information to identify packets exchanged in connection with a call and information that is used to determine whether or not the packets exchanged in connection with the call conform to the contract information and at least includes an identifier representative of a priority-level-transition pattern, estimate, according to the identifier, a priority level transition of packets from the terminal apparatus concerning the call, and determine whether or not the type of service related to the priority level of each packet conforms to the contract information; a packet discard part to discard the packet if it is determined that the type of service does not conform to the contract information; and a packet rewrite part to rewrite the type of service into that conforming to the contract information if it is determined that the type of service does not conform to the contract information (see page 3 section 2 fourth paragraph to page 4).

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34. Regarding claim 49, PCP teaches a packet-flow-rate monitor part having a preset threshold value for a minimum flow rate of packets, to monitor, upon receiving monitor information that includes information to identify packets exchanged in connection with a call and information to determine whether or not the packets exchanged in connection with the call conform to contract information, whether or not a flow rate of packets sent from terminal apparatuses concerning the call is below the threshold value (see page 3 section 2 fourth paragraph lines 5-6; page 5 section 3 second paragraph; page 8 second and third paragraph).

35. Regarding claim 73, PCP teaches a packet transfer part to transfer a packet at a priority level from a caller terminal apparatus to a destination terminal apparatus; and a packet rewrite part to rewrite, upon receiving a notification of addresses of terminal apparatuses that exchange packets to be monitored, a destination address of a packet whose originator address is in the notified addresses into an address of a monitor apparatus (see page 3 section 2 and page 8 section 4).

36. Regarding claim 74, PCP teaches a packet transfer part to transfer a packet at a priority level from a caller terminal apparatus to a destination terminal apparatus; and a label rewrite part to set, upon receiving a notification of addresses of terminal apparatuses that exchange packets to be monitored, an LSP label for passing through a monitor apparatus as an MPLS label of a packet to be sent from a terminal apparatus whose address is in the notified addresses to a destination terminal apparatus (see page 3 section 2; page 8 section 4; Figures 5 and 6).

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***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 5, 9, 13, 17, 21 and 76-78 are rejected under 35 U.S.C. 103(a) as being unpatentable over PCP in view of Graham et al. (U.S. 6,097,722).**

37. Regarding claims 5, 9, 13, 17, 21 and 76-78 PCP teaches all the limitations of independent claims 1, 6, 10, 14 and 18. PCP does not teach wherein the caller terminal apparatus is charged by a call control apparatus for a fee from the time when starting to transfer packets of the priority class. However, Graham does teach such a limitation. According to Graham's bandwidth management processes and systems, a centralized call admission control/usage monitor module determines what to charge the client. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the applicant's invention to have combined PCP's teaching of measurement based call admission control for real-time services with Graham's teaching of a call admission control monitor determining what to charge a client based on bandwidth measurement, in order to provide PCP's system a way to charge a client based on measurement of bandwidth (see PCP page 5 section 3 first paragraph).

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38. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tamaki et al. (U.S. 2003/0054796 A1) is relevant because it teaches a charging method and terminal equipment in the information and communication network system. Suni (U.S. 7,149,185 B1) is relevant because it teaches measurement-based connection admission control device for a packet data network.

### ***Conclusion***

39. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ADAM COONEY whose telephone number is (571)270-5653. The examiner can normally be reached on Monday-Thursday and every other Friday from 730AM-5PM..

40. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William C. Vaughn can be reached on 571-272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

41. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/A. C./

Examiner, Art Unit 2444

8/30/2009

/William C. Vaughn, Jr./

Supervisory Patent Examiner, Art Unit 2444